

# Safety Data Sheet



Revision Date 2022-06-24

Revision Number 7

## 1. Identification

### Product identifier

**Product Name** CLEARLY Protein Ladder (Unstained)

### Other means of identification

**Product Code** SD4266

**Synonyms** No information available

### Recommended use of the chemical and restrictions on use

**Identified uses** No information available

**Restrictions on use** No information available

### Details of the supplier of the safety data sheet

#### Supplier

USA:

Takara Bio USA, Inc.

2560 Orchard Parkway

San Jose, CA 95131, USA

Phone: 800.662.2566/888.251.6618

Web: www.takarabio.com

### Emergency telephone number

**Emergency telephone** In case of emergency, call PERS (Professional Emergency Resource Services) 1-800-633-8253 (US) or 801-629-0667 (international).

## 2. Hazard(s) identification

### Product Classification Data

Acute toxicity - Oral

Category 3

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

**Danger**

### Hazard statements

Toxic if swallowed



**Appearance** Aqueous solution      **Physical state** Liquid      **Odor** No information available

#### Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product

#### Precautionary Statements - Response

Specific treatment (see .? on this label)  
IF SWALLOWED: Immediately call a POISON CENTER or doctor  
Rinse mouth

#### Precautionary Statements - Storage

Store locked up

#### Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

#### Unknown acute toxicity

31.838 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

#### Other information

May be harmful if inhaled. Harmful to aquatic life with long lasting effects. Harmful to aquatic life.

### 3. Composition/information on ingredients

#### Substance

Not applicable.

#### Mixture

| Chemical name          | CAS No   | Weight-% | Trade secret |
|------------------------|----------|----------|--------------|
| Glycerol               | 56-81-5  | 30 - 40  | *            |
| Sodium dodecyl sulfate | 151-21-3 | 1 - 5    | *            |

### 4. First-aid measures

#### Description of first aid measures

|                       |   |
|-----------------------|---|
| <b>General advice</b> | Show this safety data sheet to the doctor in attendance.  |
| <b>Inhalation</b>     | Remove to fresh air.  |
| <b>Eye contact</b>    | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.<br>Consult a physician.   |
| <b>Skin contact</b>   | Wash skin with soap and water.  |
| <b>Ingestion</b>      | Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water.<br>Never give anything by mouth to an unconscious person. Get medical attention. |

**Most important symptoms and effects, both acute and delayed**

**Symptoms** No information available.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically.

**5. Fire-fighting measures**

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Large Fire** CAUTION: Use of water spray when fighting fire may be inefficient.

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

**Specific hazards arising from the chemical** No information available.

**Explosion Data**

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

**Special protective equipment for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Ensure adequate ventilation.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

**7. Handling and storage****Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.

**8. Exposure controls/personal protection****Control parameters**

**Exposure Limits**

| Chemical name       | ACGIH TLV | OSHA PEL   | NIOSH |
|---------------------|-----------|--|-------|
| Glycerol<br>56-81-5 | -         | TWA: 15 mg/m <sup>3</sup><br>TWA: 5 mg/m <sup>3</sup><br>(vacated) TWA: 10 mg/m <sup>3</sup><br>(vacated) TWA: 5 mg/m <sup>3</sup> | -     |

**Appropriate engineering controls**

**Engineering controls**                      Showers  
 Eyewash stations  
 Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**                      No special protective equipment required.

**Skin and body protection**                      No special protective equipment required.

**Respiratory protection**                      No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations**                      Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

**Information on basic physical and chemical properties**

**Physical state**                                      Liquid  
**Appearance**                                      Aqueous solution  
**Color**    No information available  
**Odor**     No information available  
**Odor Threshold**                                 No information available

| <u>Property</u>                         | <u>Values</u>     | <u>Remarks • Method</u> |
|---|-------------------|-------------------------|
| <b>pH</b>                               | No data available | None known              |
| <b>Melting point / freezing point</b>   | No data available | None known              |
| <b>Boiling point/boiling range (°C)</b> | No data available | None known              |
| <b>Flash point</b>                      | No data available | Open cup                |
| <b>Evaporation Rate</b>                 | No data available | None known              |
| <b>Flammability (solid, gas)</b>        | No data available | None known              |
| <b>Flammability Limit in Air</b>        |                   | None known              |
| <b>Upper flammability limit:</b>        | No data available |                         |
| <b>Lower flammability limit:</b>        | No data available |                         |
| <b>Vapor pressure</b>                   | No data available | None known              |
| <b>Vapor density</b>                    | No data available | None known              |
| <b>Relative density</b>                 | No data available | None known              |
| <b>Water solubility</b>                 | No data available | None known              |
| <b>Solubility in other solvents</b>     | No data available | None known              |
| <b>Partition coefficient</b>            | No data available | None known              |
| <b>Autoignition temperature</b>         | 248 °C / 478.4 °F | None known              |
| <b>Decomposition temperature</b>        |                   | None known              |
| <b>Kinematic viscosity</b>              | No data available | None known              |
| <b>Dynamic Viscosity</b>                | No data available | None known              |

**Other information**

**Explosive properties**                              No information available  
**Oxidizing properties**                              No information available  
**Softening point**                                    No information available

|                  |                          |
|------------------|--------------------------|
| Molecular weight | No information available |
| VOC Content (%)  | No information available |
| Liquid Density   | No information available |
| Bulk Density     | No information available |

## 10. Stability and reactivity

|                                    |   |
|------------------------------------|---|
| Reactivity                         | No information available.                 |
| Chemical stability                 | Stable under normal conditions.           |
| Possibility of hazardous reactions | None under normal processing.             |
| Conditions to Avoid                | None known based on information supplied. |
| Incompatible materials             | None known based on information supplied. |
| Hazardous decomposition products   | None known based on information supplied. |

## 11. Toxicological information

### Information on likely routes of exposure

#### Product Information

|              |  |
|--------------|--|
| Inhalation   | May be harmful if inhaled.   |
| Eye contact  | Specific test data for the substance or mixture is not available.  |
| Skin contact | Specific test data for the substance or mixture is not available.  |
| Ingestion    | Specific test data for the substance or mixture is not available. Toxic if swallowed. (based on components). |

### Symptoms related to the physical, chemical and toxicological characteristics

|          |                           |
|----------|---------------------------|
| Symptoms | No information available. |
|----------|---------------------------|

### Acute toxicity

#### Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

|                               |                |
|-------------------------------|----------------|
| ATEmix (oral)                 | 61.30 mg/kg    |
| ATEmix (dermal)               | 7,606.40 mg/kg |
| ATEmix (inhalation-dust/mist) | 7.41 mg/l      |

#### Unknown acute toxicity

31.838 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

#### Component Information

| Chemical name                      | Oral LD50             | Dermal LD50            | Inhalation LC50                      |
|------------------------------------|-----------------------|------------------------|--------------------------------------|
| Glycerol<br>56-81-5                | = 12600 mg/kg ( Rat ) | > 10 g/kg ( Rabbit )   | > 2.75 mg/L ( Rat ) 4 h              |
| Sodium dodecyl sulfate<br>151-21-3 | = 1288 mg/kg ( Rat )  | = 200 mg/kg ( Rabbit ) | > 3900 mg/m <sup>3</sup> ( Rat ) 1 h |

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

|                           |                           |
|---------------------------|---------------------------|
| Skin corrosion/irritation | No information available. |
|---------------------------|---------------------------|

|  |   |
|--|---|
| <b>Serious eye damage/eye irritation</b> | No information available.               |
| <b>Respiratory or skin sensitization</b> | No information available.               |
| <b>Germ cell mutagenicity</b>            | No information available.               |
| <b>Carcinogenicity</b>                   | No information available.               |
| <b>Reproductive toxicity</b>             | No information available.               |
| <b>STOT - single exposure</b>            | No information available.               |
| <b>STOT - repeated exposure</b>          | No information available.               |
| <b>Target organ effects</b>              | Kidney, Respiratory system, Eyes, Skin. |
| <b>Aspiration hazard</b>                 | No information available.               |
| <b>Other adverse effects</b>             | No information available.               |
| <b>Interactive effects</b>               | No information available.               |

## 12. Ecological information

**Ecotoxicity** Harmful to aquatic life with long lasting effects.

| Chemical name                      | Algae/aquatic plants   | Fish   | Toxicity to microorganisms | Crustacea                                   |
|------------------------------------|--|--|----------------------------|---|
| Glycerol<br>56-81-5                | -  | LC50: 51 - 57mL/L (96h, <i>Oncorhynchus mykiss</i> )   | -                          | -   |
| Sodium dodecyl sulfate<br>151-21-3 | EC50: 3.59 - 15.6mg/L (96h, <i>Pseudokirchneriella subcapitata</i> )<br>EC50: 30 - 100mg/L (96h, <i>Desmodesmus subspicatus</i> )<br>EC50: =117mg/L (96h, <i>Pseudokirchneriella subcapitata</i> )<br>EC50: =38mg/L (96h, <i>Desmodesmus subspicatus</i> )<br>EC50: =42mg/L (96h, <i>Desmodesmus subspicatus</i> )<br>EC50: =53mg/L (72h, <i>Desmodesmus subspicatus</i> ) | LC50: 10.2 - 22.5mg/L (96h, <i>Pimephales promelas</i> )<br>LC50: 10.8 - 16.6mg/L (96h, <i>Poecilia reticulata</i> )<br>LC50: 13.5 - 18.3mg/L (96h, <i>Poecilia reticulata</i> )<br>LC50: 15 - 18.9mg/L (96h, <i>Pimephales promelas</i> )<br>LC50: 22.1 - 22.8mg/L (96h, <i>Pimephales promelas</i> )<br>LC50: 4.06 - 5.75mg/L (96h, <i>Lepomis macrochirus</i> )<br>LC50: 4.2 - 4.8mg/L (96h, <i>Lepomis macrochirus</i> )<br>LC50: 4.3 - 8.5mg/L (96h, <i>Oncorhynchus mykiss</i> )<br>LC50: 5.8 - 7.5mg/L (96h, <i>Pimephales promelas</i> ) | -                          | EC50: =1.8mg/L (48h, <i>Daphnia magna</i> ) |

|  |  |  |  |  |
|--|--|--|--|--|
|  |  | LC50: 6.2 - 9.6mg/L (96h, Pimephales promelas)<br>LC50: 8 - 12.5mg/L (96h, Pimephales promelas)<br>LC50: 9.9 - 20.1mg/L (96h, Brachydanio rerio)<br>LC50: =1.31mg/L (96h, Cyprinus carpio)<br>LC50: =4.2mg/L (96h, Oncorhynchus mykiss)<br>LC50: =4.5mg/L (96h, Lepomis macrochirus)<br>LC50: =4.62mg/L (96h, Oncorhynchus mykiss)<br>LC50: =7.97mg/L (96h, Brachydanio rerio) |  |  |
|--|--|--|--|--|

**Persistence and degradability** No information available.

**Bioaccumulation** There is no data for this product.

#### Component Information

| Chemical name                      | Partition coefficient |
|------------------------------------|-----------------------|
| Glycerol<br>56-81-5                | -1.75                 |
| Sodium dodecyl sulfate<br>151-21-3 | 1.6                   |

**Other adverse effects** No information available.

### 13. Disposal considerations

#### Waste treatment methods

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

### 14. Transport information

**DOT** Not regulated

**TDG** Not regulated

**MEX** Not regulated

**ICAO (air)** Not regulated

**IATA** Not regulated

**IMDG** Not regulated

**RID** Not regulated

**ADR** Not regulated

**ADN** Not regulated

## 15. Regulatory information

### International Inventories

**TSCA** -.

\*Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements

**DSL/NDSL** -.

**EINECS/ELINCS** -.

**ENCS** -.

**IECSC** -.

**KECL** -.

**PICCS** -.

**AICS** -.

#### **Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

### US Federal Regulations

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

#### **SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

#### **CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

#### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

### US State Regulations

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals.

### U.S. State Right-to-Know Regulations

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|---------------|------------|---------------|--------------|
| Glycerol      | X          | X             | X            |



|         |  |  |  |
|---------|--|--|--|
| 56-81-5 |  |  |  |
|---------|--|--|--|

**U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

**16. Other information**

|             |                         |                       |                           |                              |
|-------------|-------------------------|-----------------------|---------------------------|------------------------------|
| <b>NFPA</b> | <b>Health hazards</b> 2 | <b>Flammability</b> 1 | <b>Instability</b> 0      | <b>Special hazards</b> -     |
| <b>HMIS</b> | <b>Health hazards</b> 2 | <b>Flammability</b> 1 | <b>Physical hazards</b> 0 | <b>Personal protection</b> X |

**Key or legend to abbreviations and acronyms used in the safety data sheet****Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

|         |                       |      |                           |
|---------|-----------------------|------|---------------------------|
| TWA     | Time weighted average | STEL | Short term exposure limit |
| Ceiling | Maximum limit value   | *    | Skin designation          |

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
 U.S. Environmental Protection Agency ChemView Database  
 European Food Safety Authority (EFSA)  
 EPA (Environmental Protection Agency)  
 Acute Exposure Guideline Level(s) (AEGl(s))  
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
 U.S. Environmental Protection Agency High Production Volume Chemicals  
 Food Research Journal  
 Hazardous Substance Database  
 International Uniform Chemical Information Database (IUCLID)  
 Japan GHS Classification  
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
 NIOSH (National Institute for Occupational Safety and Health)  
 National Library of Medicine's ChemID Plus (NLM CIP)  
 National Library of Medicine's PubMed database (NLM PUBMED)  
 National Toxicology Program (NTP)  
 New Zealand's Chemical Classification and Information Database (CCID)  
 Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
 Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
 Organization for Economic Co-operation and Development Screening Information Data Set  
 World Health Organization

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Revision Note No information available.

**Disclaimer**

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**End of Safety Data Sheet**